

ABSTRACT OF THE DISCLOSURE

A system for generating a simulated radar return signal. The novel system includes a processor adapted to receive target and waveform parameters and in
5 accordance therewith generate a composite digital signal, and a digital to analog converter adapted to convert the digital signal to an analog signal. The system also includes an upconverter adapted to convert the analog signal to radio frequency. The processor calculates time-domain digital data samples representing a composite radar return waveform based on the target and waveform parameters. These data samples are
10 output at each time interval that the digital to analog converter samples data. The composite waveform can include returns from a large number of targets and from targets embedded in clutter. The system can also be adapted to test a radar system having multiple antenna ports by replicating the basic design for each port.

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